

Work Order ID 46410-3

June 26, 2009 11:50:58 AM



Page 1

Item ID: D6101-003
Revision ID: A
Item Name: Saddle Billet, 7075

Accept



Setup Start



Stop



Start Date: 15/07/2009 Start Qty: 300.00
Required Date: 03/08/2009 Req'd Qty: 300.00



Cust Item ID:
Customer:

Reference:

Approvals: Process Plan: *CZ* Date: *09/10/23* Tooling:
QC: Date: SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D6101	Rev A

100	PURCHASING	0.00
Purchasing	Memo	0.00
Purchasing	Issue P/O: <i>8393</i>	

(a) Description: Alluminum billet (b) 7.875" x 6.250" x 2.00" thick (c) Tolerance on all dimensions are +0.030"/-0.000" (d) Grain direction along 7.875" length (e) Material: 7075-T7351 (QQ-A-250/12) (f) Material certification requi

CZ 09/10/23

110	Receive & Inspect for Damage & Mat'l Certs	0.00
Packaging	Memo	0.00
Packaging	Ensure material certification is attached	

P 09/10/23 (90)

120	QC6- Inspect dimensions to drawing	0.00
QC	Memo	0.00
Quality Control	Ensure Material certification comply to Dwg D6101	

09/10/24

40

Work Order ID 46410

June 26, 2009 11:50:58 AM



Page 2

Item ID: D6101-003
Revision ID: A
Item Name: Saddle Billet, 7075

Accept



Setup Start



Stop



Start Date: 15/07/2009 Start Qty: 300.00

Required Date: 03/08/2009 Req'd Qty: 300.00



Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130



Packaging

Packaging

Identify as per dwg & Stock Location: MAT

0.00

Memo

0.00

09/10/24

40

140



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

09-10-28

09-10-26 (40)

June 26, 2009 11:30:05 AM

Page 1 .



Required Date: 03/08/2009

Required Qty: 300.00

19/11/23 (40)

Wednesday, 11/03/2009 9:53:16 AM
Chantal Laviole

Process Sheet

SPHIT-23

Customer : CU-DAR001 Dart Helicopters Services
Job Number : 46410
Estimate Number : 10033
P.O. Number :
This Issue : 11/03/2009 S.O. No. :
Prsht Rev. : NC
First Issue : 11 Type : PURCHASED PARTS
Previous Run : 34873
Written By :
Checked & Approved By : C20910311
Comment : Est. A: 01.05.04 New Issue EC

Drawing Name : SADDLE BILLET

Part Number : D6101003
Drawing Number : D6101 REV A
Project Number : N/A
Drawing Revision : A
Material :
Due Date : 18/09/2009

Qty: 300 Um: Each

Additional Product

Job Number

Seq. #:

Machine Or Operation:

Description :

1.0

PG

PURCHASING

Comment: PURCHASING

Issue P/O: 8393

a) Description: Aluminum billet

b) 7.875" x 6.250" x 2.00" thick

c) Tolerance on all dimensions are +0.030"/-0.000"

d) Grain direction along 7.875" length

e) Material: 7075-T7351 (QQ-A-250/12)

f) Material certification required

C209103113

300

2.0

D6101003P

7075-T7351 2X6.25X7.875

Comment: Qty.: 1.0000 Each(s)/Unit Total: 300.0000 Each(s)
7075-T7351 2X6.25X7.875

3.0

PACKAGING 1

PACKAGING RESOURCE #1

Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure material certification is attached

50

88 09/04/02

4.0

QC6

DIMENSIONAL CHECK

Comment: DIMENSIONAL CHECK

Ensure Material certification comply to Dwg D6101

Date: Wednesday, 11/03/2009 9:53:17 AM
User: Chantal Lavoie

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SADDLE BILLET

Job Number: 46410

Part Number: D6101003

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

6.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion

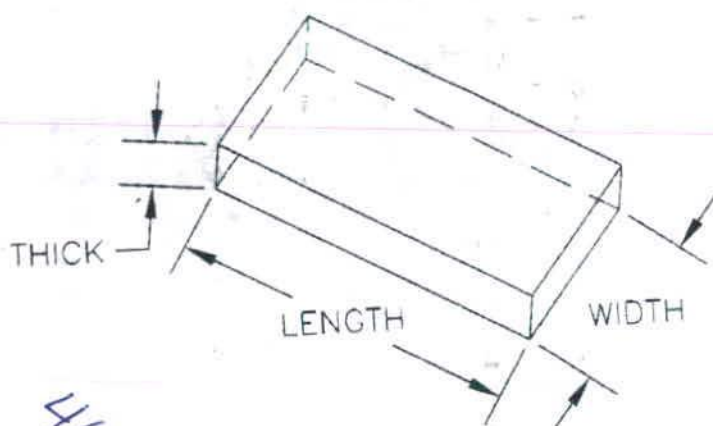




DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>A</i>	APPROVED <i>JS</i>	DRAWING NO. D6101	Rev A SHEET 1 OF 1
DATE 01.03.30		TITLE SADDLE BILLET, 7075	SCALE NTS
A	01.03.30	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
01.04.33



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 46410

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH X WIDTH X THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length

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**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP

Page 1 of 1

Pack Slip No:4567834

Ship From: Castle Metals MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 21-OCT-09	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOULIN	BOL No 99185-2	Delivery No 4567834	

Shipment Details				Final Destination Branch - MON			
Order No 324263	Line No 2	Item No 6857.MO	Description 2.0000.PL.7075.T7351.ALUMINUM.48.5000.144.5000 CUT 2SIDED TO 6.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) X 7.875 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) - ALUMINUM PLATE SAW				
Purchase Order No 8393		Part Number		Ordered Qty 40 PCS	Invoice Qty 40 PCS	Backorder Qty	
Details		R2C SEE FRANCE STATUS					
Mill	Heat Number 456750A9	Mech Id	PCS 40	Width (IN)	Length (IN)	Shipped Qty (LBS) 397.9	

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

This material has been received and inspected by:

Date:

 09/10/24

**KAISER
ALUMINUM**Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586**CERTIFIED TEST REPORT**Serial Number
4149447

Lot: 456750A9 Cast 193

Drop 20

Ingot 1

(ASTM E8/B667)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	73.1 : 73.7 (504 : 508)	62.7 : 63.4 (432 : 437)	11.9 : 12.1

(ASTM E1004)

Conductivity %IACS :	41.8 Min	42.2 Max
(MS/M) :	24.2 Min	24.5 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.08	0.22	1.4	0.02	2.4	0.20	5.7	0.03	0.01	0.01	TOT 0.05

ALLOY LIMITS

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075 MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

7075-T7351 plate 3.001-3.500" thick, If ultrasonically inspected, meets requirements of CMMP025 per SDR CMMP025-KaiserT-1. 7075-T7351 plate 3.501-5.000" thick, if ultrasonically inspected, meets requirements of CMMP025 per SDR CMMP025-KaiserT-2.

Metal represented by this test report was immersion ultrasonically tested from one side and meets the Class A and Class B requirements of all specifications referenced on this test report.

CASTLE METALS CORP.
DATE RCVD 12/16/08
IAC 685108
APPROVED BY [Signature]

CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MOLTED IN THE UNITED STATES OF AMERICA OR A QUALIFYING COUNTRY PER CHAPTER 223.872-1(h), WAS MANUFACTURED IN THE UNITED STATES OF AMERICA, AND MEETS THE REQUIREMENTS OF 48 CFR 252.226 FOR DOMESTIC CONTENT. THIS MATERIAL HAS BEEN INSPECTED, TESTED, AND FOUND IN COMPLIANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT TREATED COMPLEES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTIRE ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW, 180-9001:2000 CERTIFIED.

BILL POYNOR, LABORATORIES SUPERVISOR

[Signature]



SHIP TO:

A M CASTLE & CO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

SOLD TO:

AM CASTLE & CO- SOLD TO
3400 NO. WOLF ROAD
FRANKLIN PARK, IL 60131

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215

Phone: (800) 387-2586

CERTIFIED TEST REPORT

Serial Number

4149447

CUSTOMER PO NUMBER: 01-15905		WORK PACKAGE:		CUSTOMER PART NUMBER: 6857 A97075-60		SHIP RUN/LOAD ID: 101432/16		GOV'T CONTRACT NUMBER:	
KAISER ORDER NO: 1075544	LINE ITEM: 1	SHIP DATE: 11-DEC-2008	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: MILL FINISH PLATE			
WEIGHT SHIPPED: 5732 LB	QUANTITY: 4 PCS EST.		B/L NUMBER: 2020668		GAUGE: 2.0000 IN		WIDTH: 48.500 IN		LENGTH: 144.500 IN

Certified Specifications

AMS 4078/RevG
ASTM B 209/Rev07
BSS 7055/RevA
DPS 4.713/RevAH
GSS16100/RevG/Amd1

AMS-QQ-A-250/12
ASTM B 594/Rev06
CMMP 025/RevR
EAC MS1011/RevE
MMS 159/RevN

AMS-STD-2154
BAC 5439/RevH
CSTI 006/RevC
GAMPS 9101/RevB
PS 21211/RevK

Test Code: 4297

Test Results

Lot: 456514A8 Cast 198

Drop 21

Ingot 1

(ASTM E8/B557)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	79.2 : 79.8 (505 : 509)	63.6 : 64.9 (439 : 447)	11.6 : 11.8



(ASTM E1004)

Conductivity %IACS :	41.2 Min	41.7 Max
(MS/M) :	23.9 Min	24.2 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.08	0.21	1.5	0.03	2.4	0.18	5.7	0.03	0.01	0.01	TOT 0.05

